

FLOOD AND WEATHER EARLY WARNING SYSTEMS

# **Environmental IoT Technologies**

Green Stream provides a full **flood and weather monitoring** system for Public Safety, Environmental Professionals and Property Owners who want to protect people and property from flooding.

Our end-to-end IoT solution includes everything from environmental sensors to software to real-time actionable data. Reliable, accurate, durable, and easy to use.

We believe that situational awareness from ground truth data is key to building flood resilience. It is our mission to provide that data.

- Woman-owned Small Business
- HQ in Wake Forest NC



#### Green Stream

#### Services

- Site Studies
- Permitting Support
- Mount Design and Fabrication
- Gauge Installation
- On-going maintenance

#### **Products**

- LTE Gateway
- DCS/GOES Gateway
- Cloud Platform
  - SOC 2 Compliant
  - DSC/LRGS interface
  - NWS/HADS interface (via FTP)

## Customers















































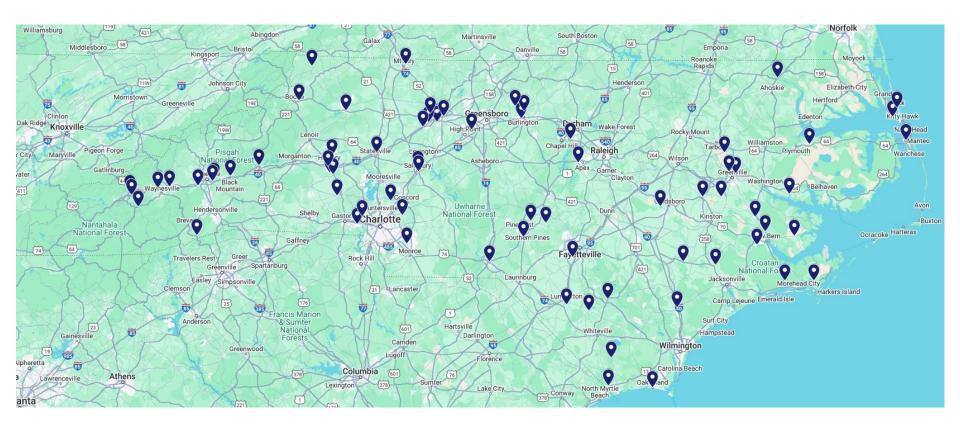
North Carolina Dept. of Emergency

Management (NCEM)

## **NCEM**

State-wide deployment of flood monitoring gauges.

- December 2021 June 2022
- 71 sites,
  - o 63 LTE
  - o 8 DCS/GOES
- Single RADAR water-level sensor
- Power via solar and on-board battery
- Sites ranged from roadway bridges culverts, docks.
- Gauge data fed into NCEMs instance of Contrail and FIMAN



## **NCEM**

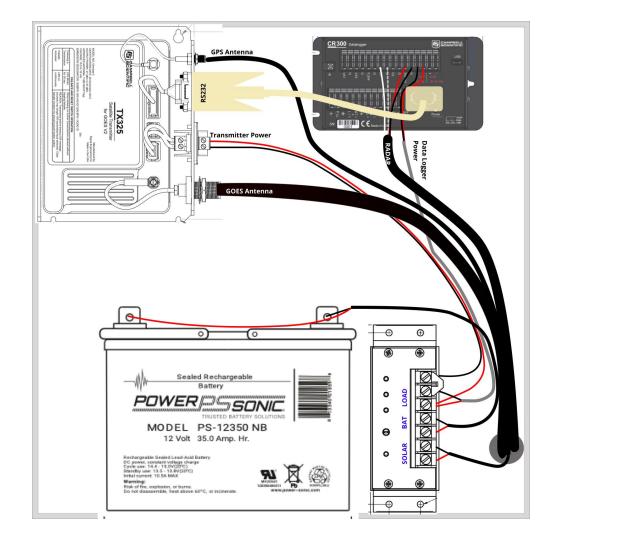
#### Tasks Undertaken

- Site Studies
- Build out of mounts and enclosures
- Installation and wiring of electronic components
- Programming data logger
- Installation

## **NCEM**

#### Components

- Campbell Scientific TX325 GOES Transmitter
- Campbell Scientific CR300 Data Logger
- SunSaver 6 solar charger
- PowerSonic 12v 35aH battery
- Campbell Scientific CS475A-L Water Level Sensor











Virginia Dept. of Emergency

Management (VDEM)

## **VDEM**

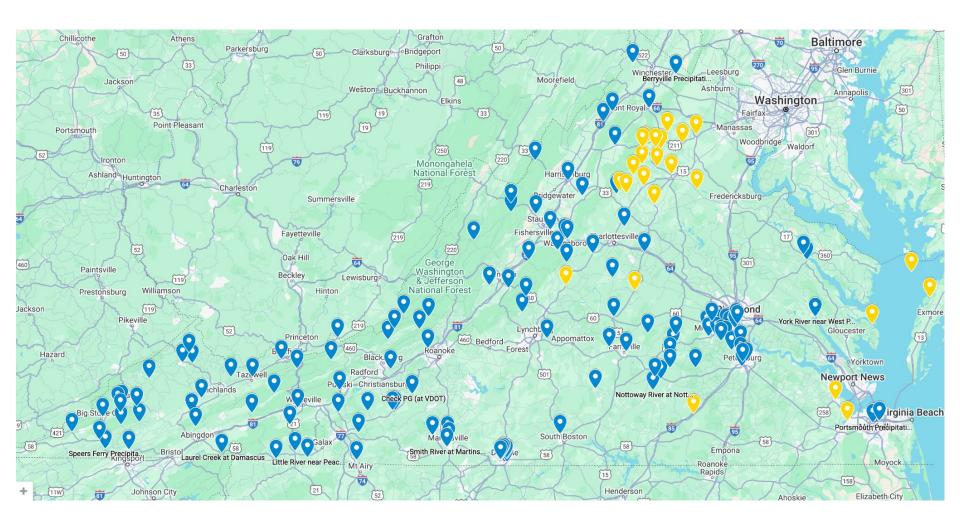
On going state-wide deployment of flood monitoring gauges.

- December 2022 -
- 169 Sites, to date
  - o 133 LTE
  - o 36 DCS/GOES
- Power via solar and on-board battery
- Gauges sensors
  - Water Level Sensors (ultrasonic and RADAR)
  - RADAR Precipitation Gauges
- Sites ranged from roadway bridges, culverts and docks
- Utilizing Green Stream Cloud Platform
  - Interface with the DCS/LRGS (Pull)
  - Interface with NWS/HADS (Push)

## **VDEM**

#### Tasks Undertaken

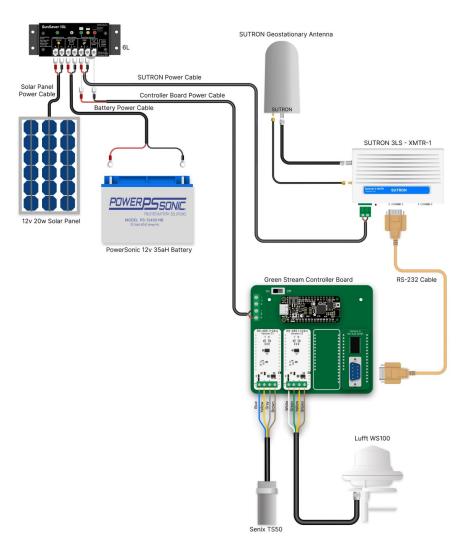
- Site Studies
- Build out of mounts and enclosures
- Installation and wiring of electronic components
- Programming Green Stream Controllers
- Installation
- On-going maintenance

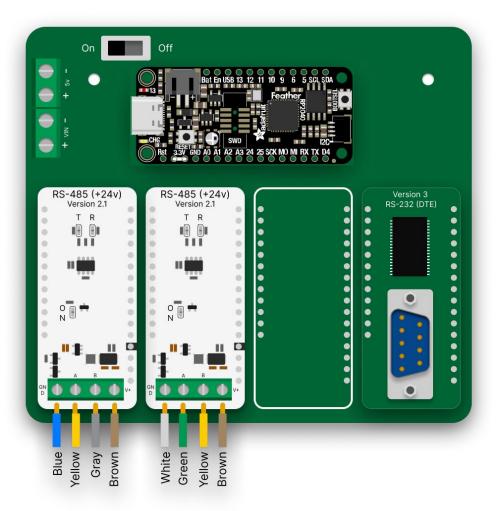


## **VDEM**

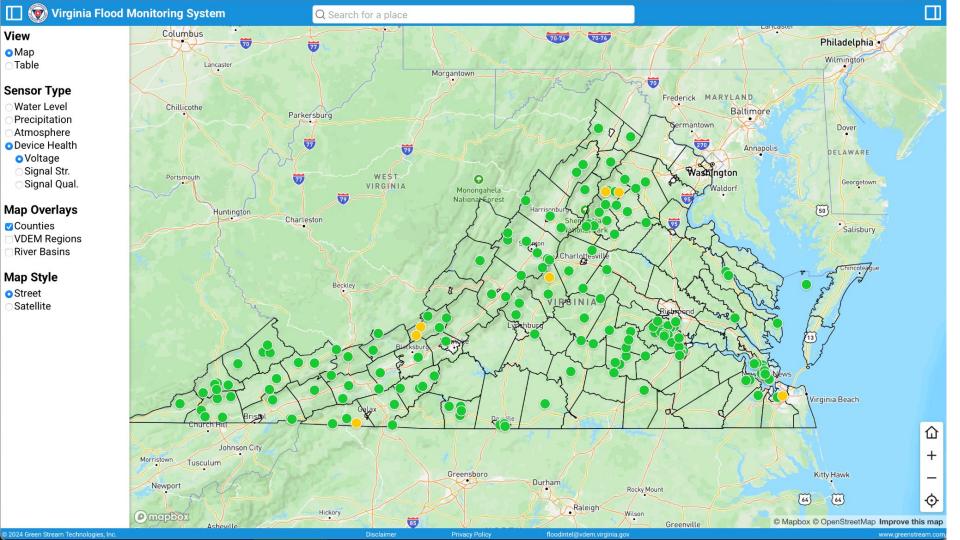
#### Components

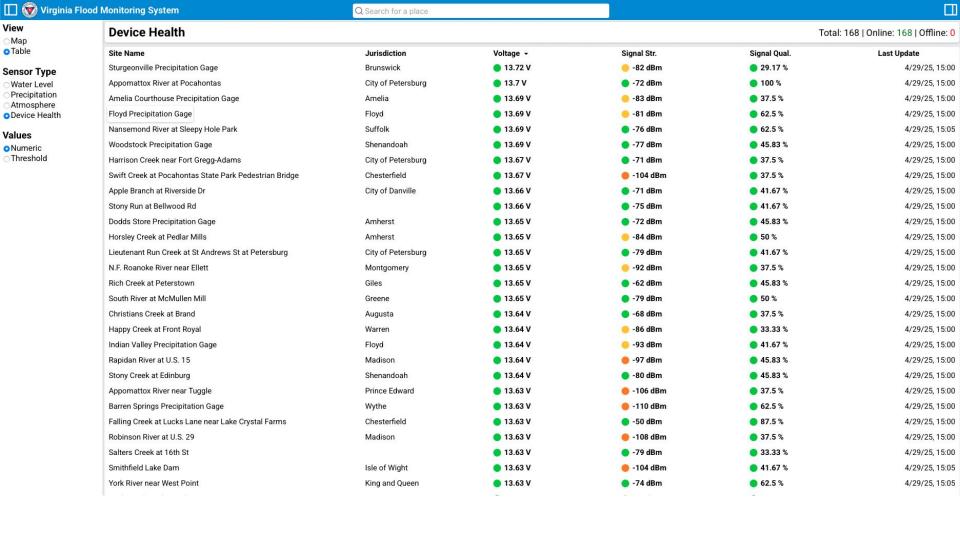
- SUTRON SatLink 3 SL3-XMTR Transmitter
- SUTRON Geostationary Antenna w/ GPS
- SunSaver 6L
- PowerSonic 12v 35Ah battery
- Sensors
  - Senix Ultrasonic Sensor
  - Campbell Scientific 475A-L
  - Lufft WS100
- Green Stream Controller Board
  - RS-485 interface cards
  - o RS-232 w/ 9 pin D-Connector























## Contact

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